

Appl. No.: 10/525,903

Amdt. Dated February 2, 2007

Response to Office Action Mailed November 3, 2006

REMARKS:

Applicant appreciates the time and care the examiner has taken in examining the application. In the amendments above, care has been taken to confirm that the claims remain supported by the original specification and no new matter is presented.

The rejection under Section 103(a) is respectfully traversed. An object of the invention claimed herein is to avoid fluctuation of the refractive index in a waveguide, which occurs due to interference of stray light and light propagating through the waveguide, as described, in particular, at paragraphs [0007] to [0012] on page 1, and paragraph [0063] on page 4, of the publication of this application, U.S. Pat. App. Pub. No. 2006-0110089. The fluctuation of the refractive index is caused by a photorefractive phenomenon, and such fluctuation becomes prominent particularly when light is input by a CW laser.

In addition, another object of the claimed invention is to eliminate stray light that is generated because a Mach-Zehnder waveguide is used, *i.e.*, generated because there is a branching point.

To this end, in the invention as claimed, a stray light rejection means is provided, in the positions, and having the features, as described in the amended base claims 2 and 8 herein.

U.S. Pat. No., 5,627,920 (Kato et al.), does not describe or deal with stray light generated due to use of a Mach-Zehnder waveguide. In U.S. Pat. No. 6,480,639 (Hashimoto et al.), only the problems caused by stray light from a laser diode (LD) or photodiode (PD) are discussed, and the invention disclosed therein does not have the feature of suppressing a photorefractive

phenomenon, as set forth in the base claims 2 and 8 herein; the objects of the present invention cannot be achieved by the stray light rejection means disclosed in Hashimoto et al. Thus, the cited references, alone or in combination, lack disclosure or suggestion of the features of the base claims 2 and 8 presented herein. Therefore, it is respectfully submitted that the Section 103(a) rejection should be reconsidered and withdrawn.

It is respectfully submitted that the application is in condition for prompt allowance and that all of the objections, rejections and requirements raised in the Office action have been met. Early, favorable treatment of this application is requested.

EXTENSION REQUEST AND DEPOSIT ACCOUNT AUTHORIZATION. The Commissioner is hereby authorized to charge any required fees associated with this communication, including any necessary fees under 37 CFR § 1.17(a) for any necessary extensions of time under 37 CFR §1.136(a), which are hereby requested, to our Deposit Account No. 50-0305. The Examiner is encouraged to call Robert J. Schneider at the direct number (312) 845-3919 with any questions that arise in connection with this application, or to resolve any remaining issues.

Respectfully submitted,



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Date: February 2, 2007
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Attorney Docket Number: 1716364
App. Serial No.: 10/525,903
Date of Facsimile Transmission: February 2, 2007
Transmitted to Facsimile No.: 1-571-273-8300

I hereby certify that the attached correspondence, namely: Response to Office Action, was transmitted by facsimile on the date listed above, to the U.S. Patent Office at the facsimile number listed above, under 37 C.F.R. § 1.8.

Signature: Brenda Walton

Typed Name of Person Signing this Certificate: Brenda Walton

Date of Signature: February 2, 2007